

# FYP Ideas - Fall 2023

## 1. FYP Title

FYP Highlights

## 2. Real Estate Transactions by Blockchain

RETB is a web application that will eliminate the need for a property dealer as a middle entity and allow buyers and sellers to interact directly through the application with the use of smart contracts. Upon completing the transaction, the data of the transaction will be added to the Ethereum blockchain network, which will be used by excise and tax department to view due taxes, and real value of the plots in real estate.

## 3. KhareedoFarokht

Khareedo Farokht is an android application that is used for comparison of same products available at different online vendor stores. The user can search an item and compare its price from different websites and check the price trends.

## 4. Obstacle Avoidance using AI

Intelligent UAV is a system that is used to detect obstacles in a drone's path and avoid those obstacles to reach a goal. We aim to use Ultrasonic and Infrared Sensors to detect obstacles on a Raspberry Pi and then use Computer Vision techniques as well as Obstacle avoidance algorithms to avoid the detected obstacles.

## 5. Detection of COVID-19 disease using Chest X-Ray images

A proposed approach that uses a model to detect Covid-19 using CXR and CT images based on the transfer of learning diagnoses Covid-19 and pneumonia. It diagnoses the above-mentioned combination of diseases. They classified very similar effects of disease on lungs using different deep learning models.

## 6. NEWS Recommendation System

NRS is a website, where we will recommend the news to our users according to their interest/ previous reading.

## 7. NewsInsight: Name Entity Trend Analysis in the News Community.

NewsInsight is an interactive website based application platform to enable end-users to explore and analyze real time name entity trends over the news community using natural language processing techniques with less effort in terms of time and resources.

## 8. Cyber Attack Early Detection and Prediction using Honeypot Traffic

CitadelGuard is a machine learning ensemble model based attack detection classification technique that utilizes several extracted features from honeypot logs deployed on a linux machine.

## **9. Clash-free Schedule Finder and Task Manager for Students**

Sortie is a virtual assistant that takes care of all of their time related issues. From giving them a clash-free schedule to helping them with all their academic tasks throughout the semester. Whether it is a reminder for an assignment or notification about your next class or your progress in the project, our application assists you throughout the way with timely reminders, alarms, sticky notes etc. It also automatically sets up alarms for every morning, making sure you are never late and gives you a todo list reminder at a predetermined time, so that everyday, you get a notification on that particular time of the day, about all of your pending tasks.

## **10. CalorieMate**

CalorieMate is a lifestyle cross-platform app, spanning on both food and fitness offering a new way of living a healthy lifestyle. It does so using machine learning/deep learning techniques to predict the daily calorie intake along with the serving size/quantity of food by taking a picture of the meal. The application further maintains a diary, provides meal and training trackers and recommends calorie intake to reach a weight goal relative to each user's profile.

## **11. Online Exam Monitoring System**

Online exam monitoring system or E-Monitor is a desktop application which will help institutions conduct online exams with utmost credibility as students will be proctored throughout the exam. This project was initiated after schools and universities moved to online mode of learning which also includes online exams and online quizzes.

## **12. Smart water tank remotely controlled by IOT**

SmartWaterTank is an android app that allows its users to control the water level of their water tank automatically.

## **13. MIDE: Monitoring IoT Devices at the Edge**

In our project, we are processing our data on network layer rather than on application layer to avoid these problems and reduce the load being transferred over the network. We'll be using an everyday-use application i.e. weather monitoring system to demonstrate the implementation used in this project

## **14. Smart Home System using Urdu Voice Commands**

Kun, which is a Smart Home System, is to be designed to control everyday appliances inside the home using Urdu voice commands. The system will be an Arduino based controller, which will connect with all the appliances and link with an Android application. This application will be used to get voice commands, which will first be converted to text, mapped to the specified command, and then sent to the Arduino controller system to perform different tasks with the appliances.

## **15. Wise Translator**

Sequence to Sequence machine translation system which will translate Urdu text into English & vice versa keeping semantic, syntactic and contextual information in consideration.

## **16. E-Hospital**

Hospicare is a telemedicine mobile application which provides a completely virtual hospital experience to the patients that don't necessarily need to physically consult a doctor (i.e., someone wants to consult a dietitian or a nutritionist or someone who just wants to update their prescription). The user(s) can book appointments, interact with the doctor and receive prescriptions. Hospicare lets doctors to review their patients and interact with them online via video and audio consultation services.

## **17. Path Visualization App for Visually impaired and Blind people**

PathVisualization is a mobile application for the visually impaired and blind people. We will be training our dataset for the detection of objects using Yolo which is a very Fast and optimized deep learning model. Then we will be detecting objects in real time frames with the help of the model and measuring the depth of the images in frame and distance estimation task. Beside, NLP techniques will be used for the better understanding of the app for the user.

## **18. Toxic Speech Detector**

ToxDetector- A platform to detect toxic material in Roman Urdu on twitter. It will ask user to search on any twitter trend/topic and will show all tweets related to that tweet with toxic words being highlighted. It also shows the result in percentage. Moreover, user can also select any particular area's tweets to be shown only.

## **19. VeeSum (Video Conferencing with Sumarization)**

A web application which will allow the users to conduct meetings or classes just like google meet or zoom etc, with the added functionality of giving the user the option to record the meeting and generate its transcription. The user will also be given the option to summarize that text.